

REMARKS

Entry of the foregoing, reexamination and further and favorable reconsideration of the subject application in light of the following remarks, pursuant to and consistent with 37 C.F.R. § 1.112, are respectfully requested.

By the foregoing amendment, claims 69, 74, and 78-85 have been canceled without prejudice or disclaimer to the subject matter recited therein. Applicants reserve the right to file one or more continuation application(s) directed to the canceled subject matter. Additionally, claims 70, 71, 73, 75, 76, and 86 have been amended. In particular, claims 70, 71, 73, and 76 have been amended so as to be in independent form. Claims 72, 75, and 86 have been amended to be dependent upon the newly presented independent claims. Claims 70, 71, and 73 were further amended and support for these amendments can be found in at least Example 4. Regarding the support in Example 4, it is noted that the comparison of the producer strain (PS); the ratio of 24, 25-methylenecholest-5-en-3 β -ol shown as "M"; the ratio of 24,25-methylenecholest-5-en-3 β -ol/desmosterol shown as "M/D"; and archegonia acid productivity shown as "ARA" is as follows:

<u>Ex. No.</u>	<u>PS</u>	<u>M(%)</u>	<u>M/D(%)</u>	<u>ARA(%)</u>
1	M. elongate IFOO8570	30	0.46	8
2	M. alpina CBS754.68	25	0.47	48
3	M. alpina ATCC32221	5	0.07	25
	M. alpina ATC42430	5	0.14	18
4	M. alpina CBS754.68	24	0.36	44

Lastly, new claims 87-89 have been added. Support for the newly added claims can be found throughout the originally filed application, including for instance page 5, lines 3-29, and Example 4.

Turning now to the Office Action, the Examiner has rejected claims 69-71, 73, 74, and 78-85 under the judicially created doctrine of obviousness-type double patenting as purportedly being unpatentable over claims 3 and 4 of U.S. Patent No. 6,117,905 ("the '905 patent"). This rejection is respectfully traversed.

Initially, it is noted that the '905 patent is assigned to both Suntory Limited and Nippon Suisan Kaisha, whereas the present application is assigned to Suntory Limited. Since the '905 patent and the present application are not commonly owned, *i.e.*, the assignees are not identical, a terminal disclaimer is not appropriate as suggested by the Examiner.

The rejection is rendered moot as to canceled claims 69, 74, and 78-85. It is noted that these claims were not canceled so as to acquiesce to the Examiner's rejection but rather to expedite prosecution in the present application.

As to claims 70, 71, 73 and 74 applicants submit that the present invention is completely different from that of the '905 patent. The present invention is characterized by the ratio of 24, 25-methylenecholest-5-en-3 β -ol, and established by fermentation conditions including producer microorganism, nitrogen source and culture condition, etc. The '905 patent, on the other hand, is characterized by the absolute content of 24,25-methylenecholest-5-en-3 β -ol, which is established by purification processes such as column chromatography. Therefore, the basic idea between the present invention is completely different from that of the '905 patent. In addition, the amended claims of the present application are patentably distinct from those of the '905 patent.

In light of the above, withdrawal of this obviousness-type double patenting rejection is respectfully requested.

Claims 69-71, 73, 74, and 76-85 have been rejected under 35 U.S.C. § 102(b) as allegedly being clearly anticipated by Shinmen et al. (Applied Microbiology and Biotechnology, 31:11-16 (1989)) and Shimizu et al. (Lipids, 27(6):481-83 (1992)). This rejection is respectfully traversed.

For prior art to be anticipatory, every element of the claimed invention must be disclosed, either explicitly or inherently, in a single item of prior art in the form literally defined in the claim. See, e.g., *Hybritech Inc. v. Monoclonal Antibodies, Inc.* 231 U.S.P.Q. 81, 90 (Fed. Cir. 1986).

Neither Shinmen et al. nor Shimizu et al. teach an edible composition whereby the oil comprises 24,25-methylenecholest-5-en-3 β -ol compositional ratio in a proportion of 0.36 or less with respect to the desmosterol compositional ratio, and an arachidonic acid content of 30 to 50%. In the absence of such disclosure, the Examiner has asserted that these properties are inherent. However, inherency may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient. *Ex Parte Skinner*, 2 U.S.P.Q.2d 1788, 1789 (PBAI 1987). Here, the Examiner has not provided any evidence or scientific reasoning as required to establish the reasonableness of the Examiner's belief that the limitation is an inherent characteristic of the prior art. See *id.* Thus, a proper anticipation rejection has not been set forth.

While the Examiner has stated that Shinmen et al. teaches that the nitrogen source can be a defatted soybean product, it is noted that Shinmen et al. in fact did not use soybean as the nitrogen source. As to Shimizu et al., this reference does not use the soybean as the nitrogen source nor does it use a fermenter with aeration.

Since every element of the claimed invention is not disclosed, neither Shinmen et al. nor Shimuzu et al. are proper anticipatory references. Thus, withdrawal of this anticipation rejection is respectfully requested.

Claims 69-86 have been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Shinmen et al. in view of both Shimizu et al. and Barclay (U.S. Patent No. 5,583,019). This rejection is respectfully traversed.

As described above, neither Shinmen et al. nor Shimuzu et al. teach an edible composition whereby the oil comprises 24,25-methylenecholest-5-en-3 β -ol compositional ratio in a proportion of 0.36 or less with respect to the desmosterol compositional ratio, and an arachidonic acid content of 30 to 50%. Moreover, neither Shinmen et al. nor Shimuzu et al. teach the use of a soybean product as the nitrogen source. The Barclay patent fails to remedy the serious deficiencies of the Shinmen et al. and Shimuzu et al. references. Even though this is an obviousness rejection, every element of the claimed invention still must be disclosed by the prior art in combination with, or modified by, the knowledge in the art. Here, each element of the claimed invention is not taught or suggested by the prior art in view of the contemporary knowledge in the field at the time the claimed invention was made. Thus, the Examiner's rejection amounts to nothing more than the impermissible use of hindsight reconstruction.

In light of the above, the Examiner is respectfully requested to withdraw this obviousness rejection.

In view of the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order. Such action is earnestly solicited.

In the event that there are any questions relating to this Reply and Amendment, or the application in general, it would be appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that the prosecution of this application may be expedited.

Respectfully submitted,

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